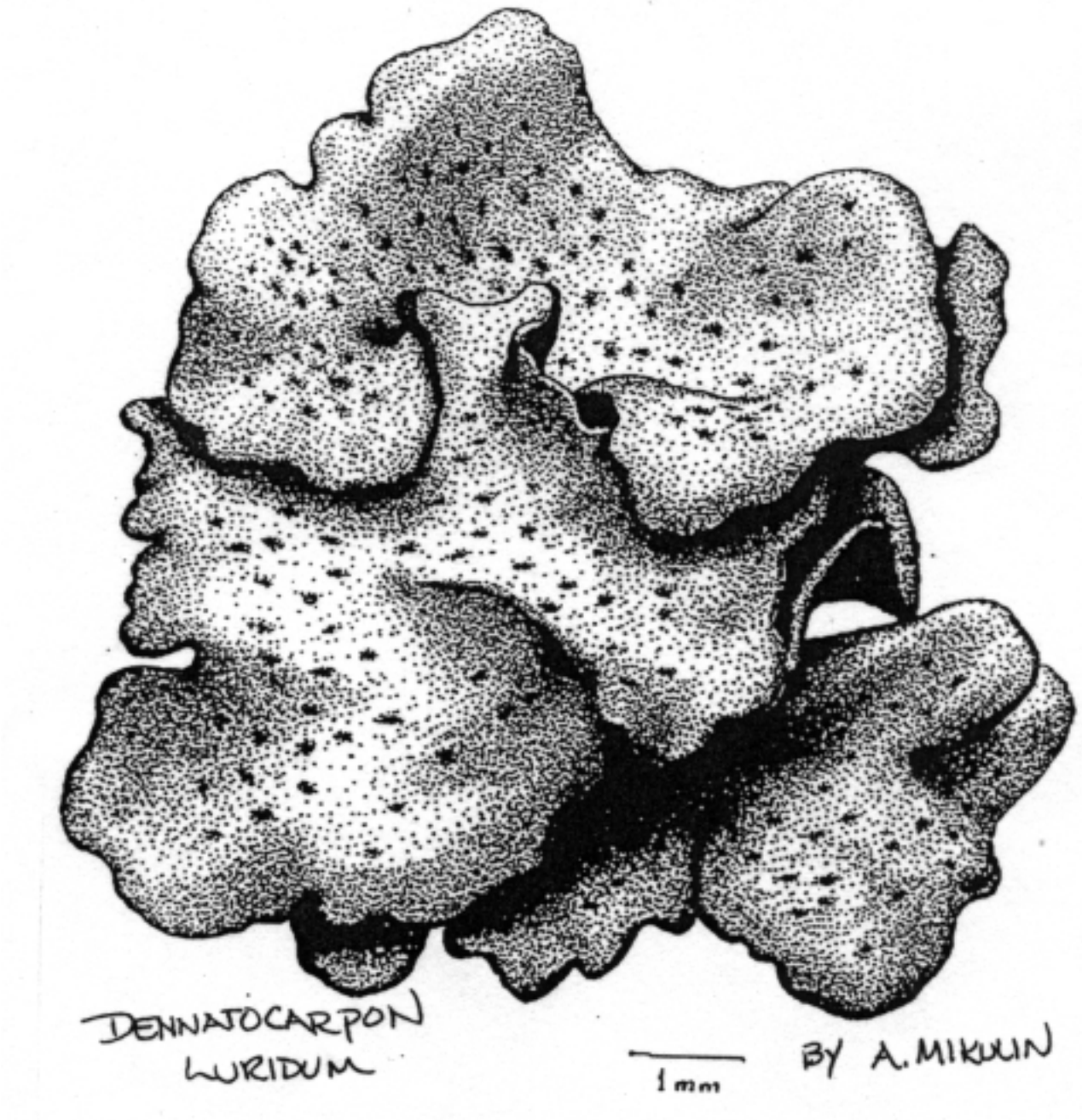
Appendix C

Survey and Manage Accomplishments (1994-2000)



Appendix C

Survey and Manage Accomplishments (1994-2000)

The following accomplishment report is an updated version of the report included in the appendices to the Environmental Assessment to Change the Implementation Schedule for Survey and Manage and Protection Buffer Species (February 26, 1999).

In November 1994, the Regional Interagency Executive Committee (RIEC) chartered an Interagency Survey and Manage workgroup. This workgroup operates under the purview of the Regional Ecosystem Office, and is guided by an Intermediate Managers Group with regional-level management representatives of the BLM, Forest Service (Regions 5, 6, and Pacific Northwest Research Station), and U.S. Fish and Wildlife.

The main purposes of the workgroup are to: (1) develop a database on species locations; (2) prepare Management Recommendations for species in Categories 1 and 2; (3) prepare Survey Protocols for Category 2 species; and, (4) prepare procedures for addressing species in Categories 3 and 4. This work and other Survey and Manage efforts are discussed below. In addition, because of their similar information needs, the Protection Buffer species were added to the workgroup's purview. The workgroup consists of approximately 50 agency experts and program managers in the various taxonomic groups.

Database on Species Locations: In 1994-1995, data on locations of all Category 1 Survey and Manage species was widely collected. The data came from agency files of the BLM, Forest Service, and the National Park Service, as well as from several experts contracted to gather information from herbaria, museums, and private collections located across the country that were thought to have the major holdings of Northwest species. Nearly 8,000 records of variable quality and precision were collected; about 2,000 (25 percent) had location information sufficient to locate the species. A database containing the collected information was developed and distributed to field units of the BLM and Forest Service to be used in project planning and managing any of the known sites located in proposed project areas.

Location descriptions ranged from vague locations (such as mountains, trails, rivers, or even just name of the state), and legal descriptions with smaller units (but not usually finer than approximately 0.25 mile), to accurately located sites indicated by crossings or maps. Because one main purpose of Category 1 is to use the "known site" information to design or modify activities, the location information needs to be precise. The Northwest Forest Plan Record of Decision (USDA, USDI 1994b, p. C-4) suggests using a Geographic Information System (GIS) to compile the locations of species. However, spatial depiction of a site requires points or boundaries of the site, which were not generally available, especially from herbarium and museum records.

The data was reviewed and located as finely as possible by looking at aerial photos and topographic maps to follow features identified on data sheets or collection labels. The categories in the "precision" field of the database were identical to those used by the state heritage programs, with the two finest being to the second (approximately 150 feet) and minute (approximately 1.5 miles) of latitude-longitude. The 1.5-mile range was determined to be too indefinite of an area to use for planning projects; consequently, the sites known to approximately 150 feet were identified as "known sites."

All sites of species where fewer than 10 sites were known were considered "exception" sites and identified as "known sites" for protection. Although these sites were broadly identified, loss of them was considered harmful to the species persistence. Version 1.0 of Known Sites Database

was transmitted to the field in July 1995 (see Appendix D). That database version consisted of only those sites considered as "known sites" such that points could be entered in local GIS themes for project planning.

All data collected, regardless of its precision, were compiled and included in Version 2.0 Known Sites Database, which was transmitted to the field in May 1997. Some problems were identified with this version in updating the database for all field units and in sorting some types of data. Currently, a more useful database has been developed, the Interagency Species Management System (ISMS). It contains all the data in the Known Sites Database plus data collected since its last update. Appendix D has more information on ISMS. The ISMS is designed to store all species-specific data at a central point accessible in real-time by field staff of the BLM and the Forest Service. The ISMS is expected to be fully operational during the year 2000. Data about Survey and Manage species and their habitats will be managed in ISMS on all Survey and Manage species.

Management Recommendations: The workgroup gathered known information on each of the 274 Category 1 and 2 and Protection Buffer species to draft Management Recommendations. These documents are considered the most complete single source of information on most of these species. Management Recommendations are completed for 263 of these species. Of the 11 not completed, seven are being revised or edited by the Regional Ecosystem Office (REO) in preparation for review; management direction is given in the Protection Buffer Standards and Guidelines for 1 species; and the remaining 3 are proposed to be removed from the Survey and Manage Standards and Guidelines in the action alternatives in this SEIS. If this does not happen, Management Recommendations will be prepared.

Survey Protocols: The same team members who are developing Management Recommendations have also developed Survey Protocols for all species that are Category 2 species, Protection Buffer species, or other species whose standards and guidelines require protocols. For more detail on the status of Management Recommendations and Survey Protocols, reference Table 2-1 in Chapter 2 of this SEIS. Survey Protocols were prepared and distributed to the field in time to initiate surveys in 1995 for the great gray owl and prior to 1997 for habitat-disturbing activities as identified in the Northwest Forest Plan Record of Decision for the red tree vole and five amphibians. In March 2000, subsequent to a 1999 court ruling, the Red Tree Vole Survey Protocol was rewritten and was distributed for field use.

The Agencies have provided extensive training to field personnel in survey techniques and identification of these species. Both in-house personnel and contractors have presented training throughout the region, provided species identification and technical advice to field personnel, and assisted in preparing field guides and other documents.

General Regional and Extensive Surveys: An Interagency Bryologist-Lichenologist and an Interagency Regional Mycologist were hired to direct the survey efforts for taxa in Categories 3 and 4, provide technical advice to the Agencies, and present training to field staff. Workgroups focusing on Category 3 and 4 species of bryophytes, lichens, and fungi have prepared a work plan and are surveying for these species, starting with those that appear to be at greatest risk. The approach is to revisit known sites and characterize the habitat to guide surveys to appropriate habitat. Since survey initiation, nearly 30,000 acres have been directly surveyed by these teams. Researchers at the USDA Pacific Northwest Research Station (PNW) and Pacific Southwest Research Laboratory (PSW) have developed and initiated general regional surveys for two of the arthropod guilds. Surveys for the other two guilds will be phased in with a planned initiation of 2002.

In 2000, landscape-level surveys are being designed and implemented as described for Extensive and General Regional Surveys from the 1994 Record of Decision and as described for strategic surveys in this SEIS. A landscape-level survey framework plan is also being developed (expected completion late 2000). Elements of the framework plan include: (1) multispecies sampling on randomly selected plots in a pre-established grid system; (2) revisits to known sites to better

characterize the present habitat characteristics to aid in focusing future surveys and in recommending the range of habitat management; and, (3) focused surveys in appropriate conditions seeking occurrences of particular species. This approach expands the efforts undertaken in 1996 in the implementation of Category 3 and 4 surveys.

Specific accomplishments include the following:

Years 1996-1999 - With initial Survey and Manage efforts having put databases, Management Recommendations, and Survey Protocols in place for most species, and management of known sites and pre-disturbance surveys on schedule (as amended), extensive and general regional surveys (Components 3 and 4 respectively) were initiated in 1996. Two sub-teams, a regional Fungal Survey Team and a regional Lichen/Bryophyte Survey Team were formed to conduct these surveys because these taxa contained the overwhelming majority of species in these two components, about 285 species. The teams collected considerable new information on distribution and habitat requirements for several species and planned to spend several more years completing efforts on the entire list of species. Organization of general regional surveys for arthropods also started in 1996 for two of the four arthropod guilds, with the first field work in 1997. The arthropod surveys use a research-based experimental approach to examine the effects of disturbance (thinning and fire) on arthropod diversity and function. These disturbance effects were the primary concerns for arthropod persistence in the southern provinces of the Northwest Forest Plan.

Year 2000 - As work progressed on this SEIS in 1999, the six categories of Alternative 1 (the preferred alternative) and their defining criteria were proposed. Further, known information about each species was compiled and the Species Review Process (see Appendix F) was conducted to assign each species to a category or recommend them for removal from Survey and Manage. These efforts highlighted the importance of data from extensive and general regional surveys. The differences between the categories immediately helped to focus the specific questions that most needed to be answered for each species or species group. This focus resulted in a substantial increase in extensive and general regional surveys, now grouped as strategic surveys in fiscal year 2000.

Surveys in fiscal year 2000 built upon work from previous years and added new methods, depending upon the questions to be answered for each species and category. Each method is designed to meet scientific credibility, efficiency, and appropriate levels of statistical rigor. The Agencies allocated over $4 million to strategic surveys in fiscal year 2000. Efforts, which continue to be built upon in fiscal year 2001, included:

Random Grid Projects: Two ongoing random grid projects are designed to find additional occupied sites for many Survey and Manage species. For these projects, a statistically valid random sample of 1/2-acre survey plots is selected from among existing long-term forest inventory plots already uniformly distributed throughout federally managed lands in the Northwest Forest Plan area. The data will immediately contribute to answers about the distribution of species and, with analysis, it may also answer questions about the relationship of these species with particular habitat conditions. The first random grid project, in California, has conducted surveys for 11 species at 270 plots. This data can be combined with data from similar surveys conducted in 1999.

The second random grid project involves three areas, with 100 sample plots at each area (total of 300 plots). The project areas are: the Oregon Coast Range federal lands, the Gifford Pinchot National Forest, and federal lands in the Umpqua Basin. Sampling for all lichens, bryophytes and vascular plants on Survey and Manage is being conducted at each plot. Because of limitations on survey seasons, fungi and mollusk surveys are being conducted on 70 of these plots in each area (total of 210 plots).

Known Sites Surveys: Known Sites Surveys have been implemented in fiscal year 2000 and are similar to work done in previous years for Survey and Manage Component 3 and 4

lichens, bryophytes, and fungi. The work has three facets. First, already-documented locations of Survey and Manage species are revisited to confirm their existence at the sites. Then, an intensive vegetation/habitat data collection is performed. This data contributes to the design of habitat models and also provides information to develop better Survey Protocols and Management Recommendations. The final step is to search the surrounding area in an attempt to locate additional sites of the target species. As of September 2000, standardized data has been collected at 59 locations of 15 species of lichens and 9 locations of 1 species of bryophytes.

Red Tree Vole: Red tree vole work in fiscal year 2000 consists of five different projects. An analysis of spotted owl casting pellets will corroborate red tree vole range and distribution. A genetics lab is exploring the isolation of red tree vole genes for potential use in questions of population isolation and identification of priority sites. In the Umpqua Basin, randomly-selected forest inventory plots serve as the locations of habitat studies and red tree vole population occurrence. Selected "known sites" are being visited to learn about red tree vole persistence at a site and habitat associations. Finally, a project on the Klamath National Forest is investigating red tree vole occurrence at random forest inventory sites and is looking at habitat associations of the species. A comparable level of study will continue in fiscal year 2001.

Amphibians: A strategic survey project targeting Del Norte and Siskiyou Mountain salamanders was implemented to survey random forest inventory plots inside reserves. Thorough species searches and habitat characterizations were completed for 135 plots in fiscal year 2000 and surveys have begun at another 22 plots.

Habitat Modeling: Under the strategic survey efforts, a team has initiated the use of existing Potential Natural Vegetation mapping and Plant Association Guides to model habitat for five Survey and Manage species. This work uses vegetation data to project where the species should occur, then surveys those locations to determine if the projection was correct. This modeling work builds from the known sites work described above.

Synthesizing data from related efforts: The strategic survey work is reviewing data collected in other efforts to learn from those projects. The best example is the numerous known sites of Survey and Manage lichen species incidentally documented during air quality studies.

Individual field units: Finally, individual field units have contracted for fungi and other surveys. The results of these surveys have been added to the ISMS database and incorporated into ongoing strategic survey planning. These surveys include fungi surveys in northern California and Salem District of BLM, and mollusk surveys at Coos Bay BLM, for example.

Communications: To facilitate sharing information with the public and with other agencies, a website managed by the BLM provides documents prepared by both the BLM and the Forest Service. The website may be found at: http://www.or.blm.gov/nwfp.htm/. Among the various planning documents available on the internet site are the Record of Decision and Standards and Guidelines for the Northwest Forest Plan FSEIS (USDA, USDI 1994b), the Environmental Assessment to Change the Implementation Schedule for Survey and Manage and Protection Buffer Species and the Finding of No Significant Impact (February 26, 1999) and the Findings and Plan Maintenance documents extending the date for seven species covered by the February 26, 1999, decision (March 2000). All BLM memoranda (including interagency memoranda) pertaining to Survey and Manage Management Recommendations and Survey Protocols, as well as copies of all Management Recommendations and Survey Protocol documents, are also available soon after their release. See http://www.or.blm.gov/surveyandmanage/. This website also includes Field Guides to Terrestrial and to Freshwater Aquatic Mollusks.

Management Changes: In the process of researching the Survey and Manage species, justifications were also prepared to move species between categories and to correct errors in the standards and guidelines. These justifications followed the process identified on page C-6 of the Northwest Forest Plan Record of Decision for modification, or the Agencies' regulations for correcting minor errors. These species included *Arceuthobium tsugense* (hemlock dwarf mistletoe), lynx, *Buxbaumia piperi*, and the "understory and forest gap herbivores" guild of arthropods.

Utilizing the direction on page C-6 of the 1994 ROD, an Environmental Assessment, a Finding of No Significant Impact (FONSI), and decision documents were prepared in 1999 to delay for 1 year the survey for 32 species which were determined to be infeasible to survey (USDA 1999 and USDI 1999). During 1999, field guides and other methods to improve our ability to survey for most of these species were prepared. However, due to the non-annual and unpredictable timing of fruiting of fungi, it remains infeasible to survey for them. Early in the year 2000, decisions were made to delay the survey date for seven fungi species for another year (USDA 2000 and USDI 2000). However, this decision requires fungi surveys during the appropriate seasons for 1 year prior to habitat-disturbing activities.

Recent Organizational Changes: The Intermediate Managers Group was chartered by the RIEC in 1999 to look at the efficiency of the present organization to implement the Survey and Manage Standards and Guidelines, including the proposed changes recommended in this SEIS. As a result, the Intermediate Managers Group has recommended a full time, interagency staff dedicated to implementing the Survey and Manage Standards and Guidelines. Key personnel include an Interagency Survey and Manage Program Manager and full time staff guiding landscape-level surveys, pre-project surveys, conservation planning, and information management. The new staff will work with the existing Interagency Survey and Manage workgroup to assure consistency and look for efficiencies in implementation.

Monitoring: As a result of the work done by the Survey and Manage regional level workgroup and the surveys by field staff, over 30,000 new sites of species in all categories have been found since 1995. The Agencies have been conducting implementation monitoring of projects, which includes monitoring of compliance with Survey and Manage and Protection Buffer Standards and Guidelines. Implementation monitoring for fiscal years 1996 through 1998 has found a high degree of compliance with these standards and guidelines. See *Results of the Implementation Monitoring Program* for fiscal years 1996, 1997, and 1998 (USDA, USDI 1996, 1997, and 1998). Preliminary results being compiled for fiscal year 1999 also show a high degree of compliance. These reports are available on the internet at: http://www.fs.fed.us/r6/plan/monitor.